Automotive Test Solutions

Fall 2015

TOP 20 TOOLS MOTOR

- Scan Tools
- Scopes
- Gas Analyzers
- Misfire Detection
- Ignition Analyzers
- Leak Detection
- Engine Simulators
- Training Products

Call Today!

1-800-572-6112

View the complete line of ATS tools & accessories online at:

www.AutomotiveTestSolutions.com

Welcome to ATS

ATS Tech Support = Fast Solutions

Free technical support is standard at ATS. On all products. That's real help, from a living breathing specialist. Someone who "talks tech" and understands how to make our equipment work for you. Need a hand? We'll log on with you and walk you through the process. Easy.

Need help using our products? Just call, it's that EASY!

Our customer support is the most comprehensive available!

To receive our support remember to register your products online or by mail.

ATS Technical Support

Hans Wittler's Automotive

For customer support please call

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or visit us on the web at

www.AutomotiveTestSolutions.com

Products • Articles • Tutorials • Training Videos • Animations

BULLSEYE Leak Detector®

Patent Pending

INTRODUCING THE REVOLUTIONARY BULLSEYE LEAK DETECTOR!

A Motor Magazine 2014 TOP 20 TOOL and TST's Technicians' Choice 2013 Winner!

FIND LEAKS QUICKLY AND ACCURATELY IN ALL SEALED SYSTEMS IN 3 EASY STEPS

1. **BULLSEYE Leak Detector** pressurizes the sealed system with CO2 gas.

2. **BULLSEYE Leak Detector** quickly and precisely locates the leak site area.

3. **BULLSEYE Leak Seeker Foam** changes color to pinpoint the leak site.

The **BullsEye Leak Detector** from ATS pinpoints leaks in air conditioning, fuel vapor, as well as other closed automotive systems including; air suspension, tire and wheel, combustion gas in cooling system, crankcase oil leaks, induction system leaks, air brakes, cooling systems and much more. Its unique approach combines inert carbon dioxide and a special CO2 leak detector to zero-in on the smallest leaks, saving you hours of wasted time, frustration--and embarrassing comebacks! Here's why the BullsEye hits the mark:

- CO2 is great for leak detection. It is a small molecule that penetrates tiny breaks in the system for faster detection of "small" leaks; the ones that cause comebacks. Just charge the sealed system with CO2. Then start sniffing with the special BullsEye CO2 detector.
- Work in tight areas. The BullsEye CO2 detector is portable. Battery-operated, it is light, small, and reaches into tight areas where leaks hide, identifying their location with a loud audible signal. Now you can sniff out pesky leaks that lurk in hard to reach places, in less time.
- Confirm your diagnosis faster. Spray our special leak detection foam on the area where the sniffer detects the leak. The pink foam changes color (from pink to yellow) when it comes in contact with CO2, to confirm your diagnosis and pinpoint the exact location of the leak.
- Work safer. Unlike compressed air, inert CO2 will not support combustion, and cannot be confused with other HC sources. It won't leave moisture behind like compressed air will, or contaminate systems like smoke machines will.
- Works on any sealed system. Ideal for AC, the BullsEye hits the mark on any sealed automotive system, detecting leaks smaller than one ten thousandth (.0001) of an inch and that's small!

If your current diagnostic approach to vapor leaks is more miss than hit, why not let ATS show you how to start hitting the BullsEye all the time?

BULLSEYE Leak Detector Pro Kit
PN# LDT1000

BULLSEYE® LEAK DETECTOR Patent Pending

BULLSEYE Leak Detector Kit
PN# LDT1010

ESCAN PRO®

Patented

EScan Pro
PN# ESN2000 &

EScan Pro w/Bluetooth™
PN# ESN2010

•Free Updates •Live Internet Tech Support •Complete Kit Ready for Use
With Your PC

Get the Smart Scan Tool that TALKS: Get EScan Pro

Get smart. Turn your laptop computer into a diagnostic powerhouse with the **EScan Pro** scan tool from ATS. This ***Motor Top 20 Tool*** connects to all major data protocols, including CAN. Now you ask, "What makes our **EScan Pro** so special?" Fair question: simple answer.

EScan Pro is the ***only*** smart scan tool of its kind. If you aren't sure what a smart scan tool is, ask yourself these questions:

- Does your scan tool alert you to fuel control problems?
- Does your scan tool calculate volumetric efficiency?
- Does your scan tool calculate the horsepower of the engine?
- Does your scan tool display fuel trim charts in color at different engine speeds?
- Can your scan tool tell if the air/fuel ratio is correct: if the MAF is working properly?
- Can your scan tool calculate and display catalyst efficiency?
- Does your scan tool have a list of special diagnostic PIDS?
- Can your scan tool translate Mode 6 data to simple English?

Those other tools just suck out data and spit it raw, onto the scanner screen. They ignore valuable clues that help fix cars. That's because they just don't have **EScan Pro's** *Sharpshooter*™ diagnostic tool box, an entire set of built-in assistants that search and interpret data. **EScan Pro** is like a diagnostic compass that points you in the right diagnostic direction. For your convenience, **EScan Pro** is available with corded or wireless Bluetooth interface that avoids needless cables and shop clutter. Order your **EScan Pro** and start fixing cars faster—today!

EB.O.B™

DLC Breakout Box

Makes DLC Diagnostics Fast and Easy

•Complete Kit Ready for Use

EB.O.B. DLC Breakout Box
PN# BOB1000

What? The car won't talk? The scan tool can't make a connection at the Data Link Connector (DLC)? This could get ugly. Time to call **EB.O.B.**, the **ATS** Data Link Connector breakout box.

Plug and Play

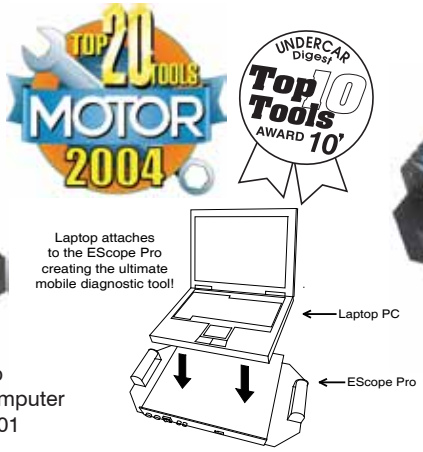
Just plug **EB.O.B.** into the vehicle DLC and he does his stuff--automatically. He checks power and ground, and watches DLC data wires, looking for voltage pulses. Then he illuminates colored LEDs to let you know what's working and what isn't! Your scan tool plugs into **EB.O.B.'s** cable extension. Convenient banana jack test ports in the console let you test circuits with a meter or scope--while they work. We've even included a handy 15 foot fused jumper wire to let you power your scan tool if there's no juice at DLC pin 16. Tests and solutions: it's what we do best.

• Finds communication problems **FAST!** • Connects to the OBDII diagnostic connector (DLC).
• Scan tool connects to DLC Breakout Box allowing a testing interface. • LEDs indicate power, grounds, and signals.
• LEDs will flash indicating protocol being used - ISO-9141-2, KWP2000, J1850 (PWM and VPM) and CAN Bus types.
• Banana jacks allow easy entry to test circuits fast with an oscilloscope. • Kit includes 15 ft fused jumper wire (if vehicle fuse is blown or ground connection to DLC is bad, jumper wire can be used to quickly power or ground scan tool).

ESCOPE PRO®
Patented

The MOST POWERFUL Diagnostic Platform on the Planet!

EScope Pro
& Ruggedized Computer
PN# ESO1001



EScope Pro
PN# ESO1000

•Free Updates •Live Internet Tech Support •Complete Kit Ready for Use

The **EScope Pro** is a powerful 16 bit PC based 8 channel, adjustable dual time base oscilloscope with complete accessory kit. **EScope Pro** allows bi-directional control of electrical devices through the wiring, feedback equation (virtual replacement of electrical sensors), and more...

Scope 8 circuits at the same time on 2 separate time bases. View fast timing signals and slow O_2 signals on the same screen at the same time.

The **EScope Pro** will supply power to and read up to four pressure transducers simultaneously. **ATS** patented software grid overlays make analyzing pressure waveforms a snap. The software will automatically convert pressure transducer voltages to pressure readings, making them easy to use and simple to read.

View large, colorful, razor sharp waveforms on your hi-res PC display. Designed for ease of use and backed by service and technical support before and after the sale. No laptop? No problem. We'll load **EScope Pro** into a customized, shop-tough laptop and ship you the works, ready to roll. Just fire it up and go.

Unlike stripped down models from some competitors, **EScope Pro** comes "with the works." You get a huge assortment of test leads, wire piercers, clips, clamps, cords, and probes. Everything you will need to start fixing vehicles **FAST!**

Check out what the pros can do with this **Motor Top 20 & Undercar Digest Top 10 Award Winner!**

- Scope **EIGHT** circuits at the same time on two different time bases.
- Power and then scope **FOUR** pressure transducers at the same time.
- Convert pressure transducer voltage to actual pressure or vacuum readings.
- Inject sensor signal simulations; test computer responses in live circuits.
- Operate actuators (coils, injectors, motors) to test their performance, with the press of a button.
- Use factory presets for common tests, or record your own.
- Make fast adjustments on the fly with our easy-to-use on-screen control console.
- Free EIgnition software allows up to 8 individual triggers so waveforms can be superimposed.
- **Free software updates!**
- **Free technical support!**

Full Accessory kit included

Using 8 traces = 8 times the power to diagnose problems!
Finds Problems Fast saving you time, making you Money!

ESCOPE LIMITED®

Patented

EScope Limited
PN# ESL1000

•Free Updates •Live Internet Tech Support •Complete Kit Ready for Use

Not ready for a Rolls Royce? How about a Cadillac?

The **EScope Limited** PC-based scope system may have four fewer channels than its eight channel big brother, the **EScope Pro**, but that's still twice as many as most shop scopes sold today. You will not find another multiple channel scope with *dual adjustable time base settings* in this price range anywhere!

A half step slower than the **EScope Pro**, the **Limited** is still fast enough to catch problems in automotive circuits. The **EScope Limited** will supply power to and read up to four pressure transducers simultaneously. **ATS** patented software grid overlays waveforms which makes analyzing pressure waveforms a snap. The software will automatically convert pressure transducer voltages to pressure readings, making them easy to use and simple to read.

The **EScope Limited** ships with enough test leads, adapters, clips and piercers to get you up and running as soon as the software is loaded into your PC. Later, as your skills and your budget grow, you can easily add accessories, like amp clamps and transducers.

EScope Limited is designed for ease of use, and backed by service and technical support before and after the sale. Designed from the ground up as part of a test solution package, you can expect it to work and play well with other **ATS** products as you build a diagnostic system unlike any other.

View large, colorful, razor sharp waveforms on your hi-res PC display. No laptop? No problem. We'll load **EScope Limited** onto a customized, shop-tough laptop, and ship you the works, ready to roll. Just fire it up and go.

- A four channel, 14 bit adjustable dual time base PC automotive diagnostic scope.
- Power and then scope up to **FOUR** pressure transducers at one time.
- Converts pressure transducer voltage to actual pressure or vacuum readings.
- Use factory presets for common tests, or record your own.
- Make fast adjustments on-the-fly with our easy-to-use on-screen control console.
- Can be used in conjunction with all ATS diagnostic equipment.
- **Free software updates!**
- **Free technical support!**

ECOP™
Patent Pending

CONVERT YOUR SCOPE INTO A POWERFUL IGNITION ANALYZER

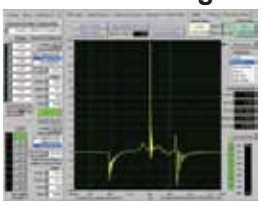
Why your shop needs the ECOP

ECOP
PN# COP1000

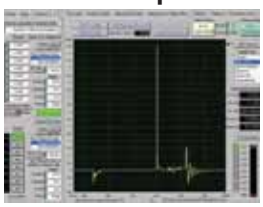
Ignition waveforms can identify engine drivability problems, but modern Coil On Plug (COP) systems have module drivers built into them so they have no primary waveform. This makes diagnostics difficult. The ECOP quickly attaches to the coil housing or ignition wire capturing a clear ignition waveform; making problems quick and easy to diagnose using any oscilloscope. Only 1 ECOP is necessary, but to take full advantage of all your scope's channels consider a set of ECOP's

The only ignition pickup that covers all types of ignition systems!

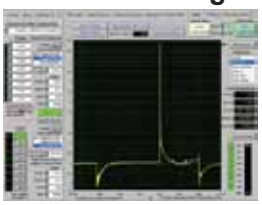
Coil On Plug



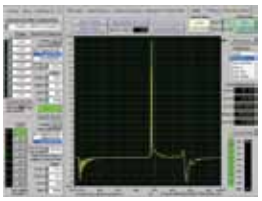
Waste Spark



Coil Near Plug



Conventional Distributor



DECADE BOXES

Resistance
Decade Box
PN# DEC1000

The **Resistance Decade Box** is ideal for testing automotive sensors and circuits; just insert the **Resistance Decade Box** in place of the sensor and dial in the resistance value that you would like to apply to the circuit. Once the resistance is adjusted properly; check the voltage of the circuit with a DVOM, scope, or scan tool. When checking sensors such as variable reluctance sensors; insert the **Decade Box** across the two leads of the sensor and set the resistance for about 1000ohms. Now check the sensors output with a scan tool or a scope to see if the voltage amplitude is correct.

Just like the **Resistance Decade box**, the **Capacitive Decade Box** is also ideal for testing automotive sensors and circuits; just insert the **Capacitive Decade Box** into the circuit that shows noise present on your oscilloscope. Now simply switch in capacitance values until the noise is no longer present or is limited in its amplitude. The technician quickly rules out noise riding on the circuit being the problem. If the noise is the problem simply check the capacitance value that has been selected and install a hard wired capacitor into the circuit for a quick fix.

Capacitive
Decade Box
PN# DEC2000

Both **Decade Box's** are quick and easy to use in many different automotive applications. They are must have tools for the automotive electronic technician.

EMISSFIRE DETECTOR®

Patented

EMissFire Detector
PN# EMI1000

•Free Updates •Live Internet Tech Support •Complete Kit Ready for Use

Camshaft timing off by one tooth? Wrong camshaft installed in your engine? These are very difficult challenges that will take hours of your time to prove. What if we told you that you could tell if the camshaft timing is off by as little as one tooth, or the wrong camshaft is installed in your engine in as little as five minutes. You would think we were **CRAZY**….Well we aren't! Our **EMissFire Detector** uses advanced patented technology to check the pressure changes in the cylinders **THROUGH THE SPARK PLUG HOLE!**

INCREDIBLE? We think so.

Got a random misfire code, miss-identified misfire code, or no code at all, and the vehicle is misfiring? Another very difficult challenge that will take hours of your time to figure out. Our **EMissFire Detector** shows you which cylinder or cylinders are missing through the exhaust tailpipe and then checks the mechanical condition of the cylinder through the spark plug hole **in just minutes! ATS'** revolutionary patented **EMissFire software** automatically identifies problems and alerts the technician; saving hours of diagnostic time.

Kit includes the 4 channel **EScope Limited** and all accessories. View large, colorful, razor sharp waveforms on your hi-res PC display. No laptop? No problem. We'll load the **EMissFire Detector** and **EScope Limited** onto a customized, shop-tough laptop, and ship you the works, ready to roll. Just fire it up and go.

Just look what the EMissFire Detector can do for You!

- Quickly identifies camshaft timing problems through the **spark plug hole**.
- Quickly identifies misfiring cylinders from the **exhaust tail pipe**.
- Finds problem cylinders and identifies them quickly.
- Misfire counters provide information on which cylinders misfired and counts how many times the misfire occurred.
- Will alert you to a bank misfire, random misfire, or individual misfire.
- Checks cranking, intake and exhaust pressure pulsation confirming mechanical condition of engine quickly.
- Checks restricted exhaust system.
- Checks ignition timing.
- Chosen one of the **TOP 20 TOOLS** of 2008 by Motor Magazine and one of the **TOP 10 TOOLS** of 2008 by Undercar Digest!
- Converts pressure transducer voltage to actual pressure or vacuum readings.
- Powers up and reads up to four **Pressure Transducers** at one time.
- Four trace scope works on all vehicle electrical circuits.
- Can be used in conjunction with all **ATS** diagnostic equipment.
- **Free software updates!**

For the technician who already owns the EScope Limited or EScope Pro check out the EMissFire Detector without Scope Kit - PN# EMI1030

EMISSION - FIVE GAS ANALYZER™

Emission 5 Gas Analyzer
PN# EMS1000

Solve A/F Problems Faster
Ever wonder if a skewed air/fuel ratio is your problem? The Emission 5 Gas answers that question with a single number, known as lambda. One reading: one number: done deal. (If you eliminate air and fuel in seconds, you can move on to other possible problem areas, identified by your EScan Pro or EScope.)

•Free Updates •Live Internet Tech Support •Complete Kit Ready for Use

Gas It, Graph It, Get It Done
The **ATS Emission 5 Gas** analyzer spots common problems--right now: with update rates from probe to screen display as fast as 5 seconds! Locate fuel control problems, misfires, leaking head gaskets, no starts, hard starts, and EVAP system leaks.

Emission 5 Gas is a premium gas analyzer, made of the finest materials, designed to provide many years of trouble-free service. It comes packaged as a ready-to-run test solution, with all necessary cables, probes, connectors, hoses, and its own power supply.

Run the **Emission 5 Gas** alone or use **ATS *Multitool*** software to link it to both **EScan Pro** and **EScope Pro or EScope Limited**. Connect all three together using our optional wireless interface, and create a diagnostic suite that can't be beat.

Text or Pictures
Review **Emission 5 Gas** readings as numeric data, or graph them in bold, colorful displays that make it easy to spot trends and imbalances. Increase diagnostic power by 50% with **ATS'** innovative **Emission** software. Save data as text or image, branded with your shop name; annotated for future reference.

Service When You Need It
Look to **ATS** for tech support before and after the sale: that includes software updates and live answers to your questions. And if you've ever spent an afternoon trying to locate a hose or new filter for your current analyzer, you'll be happy to know we stock many service items, ready for prompt delivery.

- A portable five gas analyzer with built in battery for total mobile service, can be used by itself or with a PC.
- Accurately reads HC, CO, CO_2, O_2, and NO_X.
- Lambda calculations, air fuel calculations, RPM, IM240 drive cycle test, automated diagnosis.
- Only 5 second delay from sample to display.
- Works on gasoline or diesel engines.
- Low maintenance - sample cell is not sealed so it can be cleaned.
- **Free software updates!**
- **Free technical support!**

ATS Borescope™

The only medical grade fully articulating digital USB borescope on the market!

ATS Borescope
PN# BOR1000

Mouse Nest in A/C

Intake Port

Bad Exhaust Seat

- The ATS BORESCOPE is a medical grade video borescope that delivers superior images on your computer or tablet display.
- Shoots high resolution still pictures and records full length videos at the touch of a button.
- Snap Shots can be taken from recorded videos instantly.
- One-handed articulation function allows user to turn the probe tip to inspect targets located at sides or at an angle while inside tight spaces.
- 6.0 mm probe with 120 degree sweep, and 360-degree rotation.
- The extra long 3 foot probe cable length allows inspection of A/C ducts, evaporator core assemblies and much more.
- Comes with an ultra-secure thread on mirror and light for side viewing.
- Boost key allows software to run optimal brightness enhancement in very dark environments.
- Rotate image in 90 degree increments.
- Zoom feature allows 4x crystal clear image enlargement.
- Mirror image flip key.
- Package Includes: articulating 6.0mm diameter probe with 3 foot long probe cable, user's manual, camera lens cleaning kit, and hard carrying bag.
- 1 year limited warranty.

ETRAINER®

The only simulator that works just like a real engine with real life problems!

ETrainer
PN# ETR1000

The only engine simulator used by TST to certify working technicians.

Students at the
Madison Area Technical College
using the **ETrainer**.

Let them Learn by Doing

If you're a teacher or automotive instructor, you know that books, slide shows, and written tests are no substitute for hands-on experience. That's why **ATS** designed a unique training simulator, **ETrainer**; the only engine simulator with **hundreds** of faults that lets students test live electrical/electronic circuits.

The **ETrainer** simulator is a test console where common power train components are wired together in live circuits. What makes it unique and so valuable to teachers is that **ETrainer** *randomizes* circuit faults. After each "hand" is played, **ETrainer** "reshuffles the deck." Students are presented with multiple real world problems that move randomly around the test console. This forces them to rethink test strategies and select the best test procedure -- on the fly.

Students learn to play the hand they're dealt, and win.

TRAINING PRODUCTS

ATS has been involved with technical training longer than we've been manufacturing tools. It's only logical that we decided to create our own training CDs.

ABC's of Injector On-Time

This Just in Time Training program contains three animated sections describing how the vehicle PCM processes sensor data to calculate injector on-time. Finally: a program that explains this important process. It also includes an extensive explanation of how fuel trim maintains the correct air/fuel ratio, and then alerts the onboard diagnostic system to excessive fuel corrections.

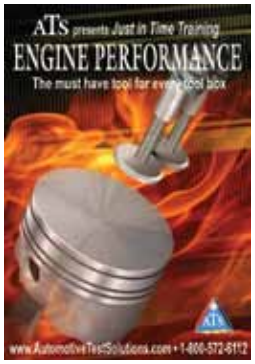
Chapter 1 - Fuel Trim 1 Chapter 2 - Fuel Trim 2 Chapter 3 - Volumetric Efficiency

ABC's of Injector On-Time
PN# TCD1010

Engine Performance

Many times a wiring schematic and the limited information available about an electrical system is not enough for the technician to repair the vehicle right the first time. Once the technician watches and listens to the in-depth animations, the inner workings of the systems become crystal clear, and the technician can use this information to repair the vehicle. Now you can learn how the circuits in the engine control system work together in modern vehicles to maximize engine performance, improve fuel economy and reduce harmful tail pipe emissions. Learn how the modern PCM senses and adjusts its outputs based on sensor inputs and operating strategies programmed in its **memory. This is the must have tool for every technician's tool box!**

Chapter 1 - Engine Coolant Temperature Sensor
Chapter 2 - Engine Coolant Temperature Switch
Chapter 3 - Intake Air Temperature Sensor
Chapter 4 - Throttle Position Sensor
Chapter 5 - 1 Wire Oxygen Sensor
Chapter 6 - 2 Wire Oxygen Sensor
Chapter 7 - 3 Wire Oxygen Sensor
Chapter 8 - 4 Wire Oxygen Sensor
Chapter 9 - 6 Wire WRAF Sensor
Chapter 10 - Mass Air Flow Sensor
Chapter 11 - Fuel Injector



Engine Performance
PN# TCD1020

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